### **RESTORATION OF AN ANCIENT**

### **MONUMENT**

by

Socratous

Georgiou

Aristotelis

Georgios

Project Report Submitted to

the Department of Civil Engineering
of the Higher Technical Institute
Nicosia Cyprus
in partial fulfillment of the requirements
for the diploma of

**TECHNICIAN ENGINEER** 

in

**CIVIL ENGINEERING** 

June 1993

1851111 2077

#### **ACKNOWLEDGEMENTS**

Before proceeding to the presentation of our work we would like to express our deepest appreciation to those who in any way contributed to the completion of this project.

To them we owe all the knowledge that we have acquired through the execution of this project.

Firstly, we would like to thank our project supervisor Mrs. Despo Serghides for her great willingness to help and her effective quidance and also for the remarkable interest which she showed.

Secondly, we would like to express our thanks and greatfulness to external assessor Mr Glavkos Papadouris (architect in the Antiquities Department) for his constructive advices which made this efford more effective and simple.

Lastly our grateful thanks go to anyone who helped us in any way.

# SUMMARY ON THE RESTORATION OF AN ANCIENT MONUMENT

by

Socratous Aristodelis Georghiou Georgios

The object of this project is to make a general study of the church of St. John the Almsgiver from a theoretical, structural and architectural point of view.

The whole study is presented in three parts as follows:

The first part deals mainly with the theoretical analysis of the church. In this part the historical religeous and social background of the church is presented together with a brief analysis of its architecture, layout, form and features.

Furthermore an analysis of the general factors causing deterioration of monuments is carried out.

The second part of this project deals with the architecture, building materials and techniques of construction followed for the erection of this church in a more specific way. Problems occur in the church are also investigated in this part, and remedies and measures that have to be taken, in order the monument to be properly restored and conserved are presented.

In the third part a photographic survey and measured drawings of the church are presented.

### **CONTENTS**

				<u>Page</u>				
Acknowle	edaemeni	rs.						
Contents	_							
		Restoratio	on of an ancient					
monume				1				
Introduc	2							
PART A								
THEORETICAL AND ANALYTICAL STUDIES								
CHAPTER	(1)	First impr	ressions	3				
CHAPTER	(2)	Historical	l, social and religeous					
		backround	of the church	4				
CHAPTER	(3)	Architectu						
		and featur	res	5				
CHAPTER	(4)	4.1 Deterioration of the						
		churc	ch	6				
		4.2 Facto						
		the o	deterioration of					
		monum	nents	7				
		4.4 Stone	33					
		4.4.1.	Factors creating					
			changes in stone	34				
		4.4.2.	Specific causes of					
			decay in stones	37				
PART B				,				
CONSERVA	ATION A	ND RESTORAT	<u> FION. REMEDIES TO THE PR</u>	OBLEMS				
CHAPTER	(5)		truction techniques and					
		build	ding materials	39				
		5.1.1.	Stones-general	39				
		5.1.2.	Walls	41				
			Foundations	43				
		5.1.4.		48				
		5.1.5.	Roof	48				
		5.1.6.	Doors - Windows	52				

CHAPTER (	(6)	6.1 Conse	ervation and Restoration	53
		6.1.1.	Conservation	53
		6.1.2.	What buildings worth to	
•			be conserved	53
		6.1.3	Restoration	54
		6.1.4	Anastylosis	54
		6.2 Remedies and measures		
		†0	be taken	55
		6.2.1.	Foundations	55
		6.2.2.	Walls	56
		6.2.3.	Treatments to stones	61
		6.2.4.	Floors	65
		6.2.5.	Roofs	65
CHAPTER (	(7)	Conclusion	ns	67

## PART C

APPENDIX A: Photographic survey

BIBLIOGRAPHICAL REFERENCES

APPENDIX B: Drawings